		Exploring Aero	nautics
		2004 Scien	
		Standard Course	of Study
North Carolina Science	ce		
Grade 5			
Activity/Lesson	State	Standards	
Fundamentals of			Determine that an unbalanced force is needed
Aeronautics (145-176)	NC	SCI.5.4.04	
· · · · · · · · · · · · · · · · · · ·	INC	301.3.4.04	to move an object or change its direction. Determine that an unbalanced force is needed
Airplane Control(209-	NIC	CCL 5 4 04	
256)	NC	SCI.5.4.04	to move an object or change its direction.
Harris Almalana Elia	NO	0015404	Determine that an unbalanced force is needed
How an Airplane Flies	NC	SCI.5.4.04	to move an object or change its direction.
The Tools of		201 = 4.00	
Aeronautics	NC	SCI.5.4.06.a	Devise a test for the model.
			Determine that an unbalanced force is needed
The Activity Center	NC	SCI.5.4.04	to move an object or change its direction.
			Determine that an unbalanced force is needed
Science of Flight	NC	SCI.5.4.04	to move an object or change its direction.
Integrating with			Determine that an unbalanced force is needed
Aeronautics	NC	SCI.5.4.04	to move an object or change its direction.
Intro to Aeronautics			Determine that an unbalanced force is needed
(109-123)	NC	SCI.5.4.04	to move an object or change its direction.
		Exploring Aero	
		2004 Scien	
Namela Oanalina Oalaa		Standard Course	of Study
North Carolina Science	ce		
Grade 6			
Activity/Lesson	State	Standards	
Airplane Control(209-			Evaluate technological designs for: Application
256)	NC	SCI.6.2.03.a	of scientific principles.
,			·
Tools of			Evaluate technological designs for: Application
Aeronautics(257-326)	NC	SCI.6.2.03.a	of scientific principles.
The Tools of			Evaluate technological designs for: Application
Aeronautics	NC	SCI.6.2.03.a	of scientific principles.
The Tools of		00.101210010	Evaluate technological designs for:
Aeronautics	NC	SCI.6.2.03.b	Risks and benefits.
7.07.071444.00		001101210015	THORE AND DOTTORIES
The Tools of			Evaluate technological designs for: constraints
Aeronautics	NC	SCI.6.2.03.c	of design
		551.0.2.00.0	5. 455igii
The Tools of			Evaluate technological designs for: Consistent
Aeronautics	NC	SCI.6.2.03.d	testing protocols.
, 101 01 100 1100		JOI.U.Z.UJ.U	Examine evidence that atmospheric properties
The Tools of			can be studied to predict atmospheric conditions
Aeronautics	NC	SCI.6.2.04.a	and weather hazards: products.
ACIONAULOS	1110	JOOI.U.Z.U4.a	and weather nazards. products.

t atmospheric properties
ict atmospheric conditions
Examine evidence that
s can be studied to predict
s and weather hazards:
t atmospheric properties
ict atmospheric conditions
systems
estions and hypotheses
through scientific
unough scientific
va a mine a metal in ma a a di ima a
xperimental procedures
Explain observations.
r computer simulations
ations and the
d from them including:
enefits generated by
nology including:
estions and hypotheses
through scientific
3 2 2 2 2 2
xperimental procedures
Aponino nai procedures
xperimental procedures
•
l alletione
questions.
ms of Newton's Laws:
•
ms of Newton's Laws: tards motion.
ms of Newton's Laws:
ms of Newton's Laws: tards motion.
ms of Newton's Laws: tards motion. the greater the change in
ms of Newton's Laws: tards motion. the greater the change in the result of the combined
ms of Newton's Laws: tards motion. the greater the change in
ms of Newton's Laws: tards motion. the greater the change in the result of the combined ng on the object:
ms of Newton's Laws: tards motion. the greater the change in the result of the combined

			Describe and measure quantities that
Fundamentals of			characterize moving objects and their
Aeronautics (145-176)	NC.	SCI.7.6.05.b	interactions within a system: Distance.
/ Cronadios (140 170)	110	001.7.0.00.0	Describe and measure quantities that
Fundamentals of			characterize moving objects and their
Aeronautics (145-176)	NC	SCI.7.6.05.d	interactions within a system: Force.
ACIONAGIOS (140-170)	110	001.7.0.00.u	\Evaluate technological designs for: Application
Wings(177-208)	NC	SCI.7.2.03.a	of scientific principles.
VVIIIg5(177 200)	110	001.7.2.00.0	Evaluate technological designs for: Consistent
Wings(177-208)	NC	SCI.7.2.03.d	testing protocols.
Airplane Control(209-	110	001.7.2.00.0	The greater the force, the greater the change in
256)	NC	SCI.7.6.03.c	motion.
Airplane Control(209-	110	001.7.0.00.0	An object's motion is the result of the combined
256)	NC	SCI.7.6.03.d	effect of all forces acting on the object:
Airplane Control(209-	110	001.7.0.00.u	Evaluate motion in terms of Newton's Laws An
256)	NC	SCI.7.6.03.f	object at rest will remain at rest.
200)	110	001.7.0.00.1	Describe and measure quantities that
Airplane Control(209-			characterize moving objects and their
256)	NC	SCI.7.6.05.b	interactions within a system: Distance.
200)	110	001.7.0.00.0	interdetions within a system. Distance.
Tools of			Evaluate technological designs for: Application
Aeronautics(257-326)	NC	SCI.7.2.03.a	of scientific principles.
7(0101100(201 020)	110	001.7.2.00.0	An object's motion is the result of the combined
How an Airplane Flies	NC	SCI.7.6.03.d	effect of all forces acting on the object:
Tiow air / iii piano i noo	110	001.7.0.00.0	Describe and measure quantities that
			characterize moving objects and their
How an Airplane Flies	NC	SCI.7.6.05.d	interactions within a system: Force.
Trow arry implante t nee		001111010010	Describe and measure quantities that
			characterize moving objects and their
How an Airplane Flies	NC	SCI.7.6.05.f	interactions within a system: Center of mass.
			Evaluate motion in terms of Newton's Laws:
			An object's motion is the result of the combined
The Activity Center	NC	SCI.7.6.03.d	effect of all forces acting on the object:
,			J J
			Evaluate technological designs for: Application
Science of Flight	NC	SCI.7.2.03.a	of scientific principles.
			Explain the composition, properties and
			structure of the atmosphere:
Science of Flight	NC	SCI.7.3.01.d	As altitude increases, air pressure decreases.
			, .
			Examine evidence that atmospheric properties
			can be studied to predict atmospheric conditions
Science of Flight	NC	SCI.7.3.05.c	and weather hazards: Wind speed and direction.
<u> </u>			Examine evidence that atmospheric properties
			can be studied to predict atmospheric conditions
Science of Flight	NC	SCI.7.3.05.d	and weather hazards: Air pressure.
<u>J</u>			Examine evidence that atmospheric properties
			can be studied to predict atmospheric conditions
Science of Flight	NC	SCI.7.3.06.d	and weather hazards: Recording.
			Evaluate motion in terms of Newton's Laws:
Science of Flight	NC	SCI.7.6.03.a	The force of friction retards motion.

			Evaluate motion in terms of Newton's Laws:
			For every action there is an equal and opposite
Science of Flight	NC	SCI.7.6.03.b	reaction.
Science of Flight	INC	301.7.0.03.0	Evaluate motion in terms of Newton's Laws:
			The greater the force, the greater the change in
Science of Flight	NC	SCI.7.6.03.c	motion.
Science of Flight	INC	301.7.0.03.0	Evaluate motion in terms of Newton's Laws:
Colonno of Flight	NC	CCI 7 6 02 d	An object's motion is the result of the combined
Science of Flight	NC	SCI.7.6.03.d	effect of all forces acting on the object:
Oniones of Flight	NO	00170006	Evaluate motion in terms of Newton's Laws An
Science of Flight	NC	SCI.7.6.03.f	object at rest will remain at rest.
1 1 1 11			Evaluate motion in terms of Newton's Laws: An
Integrating with		001 = 000 1	object's motion is the result of the combined
Aeronautics	NC	SCI.7.6.03.d	effect of all forces acting on the object:
			Evaluate motion in terms of Newton's Laws: For
Intro to Aeronautics			every action there is an equal and opposite
(109-123)	NC	SCI.7.6.03.b	reaction.
			Evaluate motion in terms of Newton's Laws: The
Intro to Aeronautics			greater the force, the greater the change in
(109-123)	NC	SCI.7.6.03.c	motion.
			Evaluate motion in terms of Newton's Laws: An
Intro to Aeronautics			object's motion is the result of the combined
(109-123)	NC	SCI.7.6.03.d	effect of all forces acting on the object
			Evaluate motion in terms of Newton's Laws: For
Scientific Method(124-			every action there is an equal and opposite
144)	NC	SCI.7.6.03.b	reaction.
,	_		Evaluate motion in terms of Newton's Laws: The
Scientific Method(124-			greater the force, the greater the change in
144)	NC	SCI.7.6.03.c	motion.
/			Evaluate motion in terms of Newton's Laws: An
Scientific Method(124-			object's motion is the result of the combined
144)	NC	SCI.7.6.03.d	effect of all forces acting on the object
Scientific Method(124-		30111010014	Evaluate motion in terms of Newton's Laws: An
144)	NC	SCI.7.6.03.f	object at rest will remain at rest.
,	110	30111010011	
		Exploring Aero	nautics
		2004 Scien	
		Standard Course	
North Carolina Scien	ce		
Grade 8			
Activity/Lesson	State	Standards	
- 10.111 			Evaluate technological designs for: Application
Wings(177-208)	NC	SCI.8.2.03.a	of scientific principles.
Airplane Control(209-		001.0.2.00.d	Evaluate technological designs for: Application
256)	NC	SCI.8.2.03.a	of scientific principles.
Airplane Control(209-	110	JO1.0.2.00.a	Evaluate technological designs for: constraints
256)	NC	SCI.8.2.03.c	of design
Airplane Control(209-	110	301.0.2.03.0	Evaluate technological designs for: Consistent
	NC	6CI 0 3 03 4	
256) Tools of	INC	SCI.8.2.03.d	testing protocols.
	NC	CCI 0 0 00 b	Evaluate technological designs for: Locate
Aeronautics(257-326)	NC	SCI.8.2.02.b	resources to obtain and test ideas.
Tools of	NO	001000	Evaluate technological designs for: Application
Aeronautics(257-326)	NC	SCI.8.2.03.a	of scientific principles.

Tools of			Evaluate technological designs for: constraints
Aeronautics(257-326)	NC	SCI.8.2.03.c	of design
Tools of	INC	301.8.2.03.0	Evaluate technological designs for: Consistent
	NC	SCI.8.2.03.d	
Aeronautics(257-326) The Tools of	INC	SCI.0.2.03.0	testing protocols. Evaluate technological designs for: constraints
	NC	CCI 0 2 02 0	
Aeronautics	INC	SCI.8.2.03.c	of design
The Tools of	NO	661 0 0 00 4	Evaluate technological designs for: Consistent
Aeronautics	NC	SCI.8.2.03.d	testing protocols.
The Teele of			Examine evidence that atmospheric properties
The Tools of	NO	001.0.0.4	can be studied to predict atmospheric conditions
Aeronautics	NC	SCI.8.2.04.a	and weather hazards: products.
			Examine evidence that atmospheric properties
The Tools of			can be studied to predict atmospheric conditions
Aeronautics	NC	SCI.8.2.04.b	and weather hazards: processes.
			Examine evidence that atmospheric properties
The Tools of			can be studied to predict atmospheric conditions
Aeronautics	NC	SCI.8.2.04.c	and weather hazards: systems
			Evaluate technological designs for: Application
The Activity Center	NC	SCI.8.2.03.a	of scientific principles.
			Evaluate technological designs for: Consistent
The Activity Center	NC	SCI.8.2.03.d	testing protocols.
			Identify and create questions and hypotheses
			that can be answered through scientific
Science of Flight	NC	SCI.8.1.01	investigations.
Science of Flight	NC	SCI.8.1.08.b	Defend conclusions of scientific investigations.
			Evaluate technological designs for: Locate
Science of Flight	NC	SCI.8.2.02.b	resources to obtain and test ideas.
			Evaluate technological designs for: Application
Science of Flight	NC	SCI.8.2.03.a	of scientific principles.
			Evaluate technological designs for: constraints
Science of Flight	NC	SCI.8.2.03.c	of design
			Evaluate technological designs for: Consistent
Science of Flight	NC	SCI.8.2.03.d	testing protocols.
			Examine evidence that atmospheric properties
			can be studied to predict atmospheric conditions
Science of Flight	NC	SCI.8.2.04.a	and weather hazards: products.
<u> </u>			Examine evidence that atmospheric properties
			can be studied to predict atmospheric conditions
Science of Flight	NC	SCI.8.2.04.b	and weather hazards: processes.
oo.ooo og		0011012101110	Examine evidence that atmospheric properties
			can be studied to predict atmospheric conditions
Science of Flight	NC	SCI.8.2.04.c	and weather hazards: systems.
Intro to Aeronautics	110	001.0.2.04.0	Evaluate technological designs for: Application
(109-123)	NC	SCI.8.2.03.a	of scientific principles.
Intro to Aeronautics	INC	3C1.6.2.03.a	Evaluate technological designs for: constraints
	NC	SCI 9 2 02 6	
(109-123)	INC	SCI.8.2.03.c	of design
Intro to Aeronautics	NC	CCI 0 2 03 4	Evaluate technological designs for: Consistent
(109-123)	NC	SCI.8.2.03.d	testing protocols.
Intro to Aprair and a			Examine evidence that atmospheric properties
Intro to Aeronautics	NC	001.0.0.4 -	can be studied to predict atmospheric conditions
(109-123)	NC	SCI.8.2.04.a	and weather hazards: products.

Intro to Aeronautics			Examine evidence that atmospheric properties can be studied to predict atmospheric conditions
(109-123)	NC	SCI.8.2.04.b	and weather hazards: processes.
			Identify and create questions and hypotheses
Scientific Method(124-			that can be answered through scientific
144)	NC	SCI.8.1.01	investigations.